## **CLAIMS**

What is claimed is:

1	1. A method comprising:				
2	analyzing database access statements issued for an application in use;				
3	determining accessed items and types of access for the application based on the				
4	issued database access statements for the application; and				
5	developing a role associated with the application based on the determined accessed				
6	items and types of access, wherein the role may be used to allow a user database access when				
7	associated with the application.				
1	2. The method of claim 1 wherein analyzing the issued database access				
2	statements comprises:				
3	capturing the database access statements;				
4	normalizing the database access statements; and				
5	eliminating redundancies in the database access statements.				
1	3. The method of claim 2 wherein the database access statements comprise				
2	Structured Query Language (SQL) queries.				
1	4. The method of claim 1 wherein the determined accessed items and types of				
2	access include objects accessed and operations performed on the objects.				
1	5. The method of claim 1 wherein developing a role comprises determining				
2	permissions for the application based on the determined accessed items and types of access.				
1	6. The method of claim 1 further comprising determining which of a set of users				
2	are authorized to use the application.				
1	7. The method of claim 1 further comprising:				
2	detecting a user request to establish an application session;				
3	finding the role associated with the application; and				

- 4 assigning the role to a user.
- 1 8. The method of claim 7 wherein detecting a user request to establish an application session comprises determining if a user is authorized to use the application.
- 1 9. The method of claim 7 further comprising:
- detecting an end of the application session; and
- if an end of the application session is detected, disabling the assigned role for the
- 4 user.

1	10. All article comprising a machine-readable medium storing instructions				
2	operable to cause one or more machines to perform operations comprising:				
3	analyzing database access statements issued for an application in use;				
4	determining accessed items and types of access for the application based on the				
5	issued database access statements for the application; and				
6	developing a role associated with the application based on the determined accessed				
7	items and types of access, wherein the role may be used to allow a user database access when				
8	associated the application.				
1	11. The article of claim 10, wherein analyzing the issued database access				
2	statements comprises:				
3	determining whether the database access statements have been captured;				
4	normalizing the database access statements; and				
5	eliminating redundancies in the database access statements.				
1	12. The article of claim 10 wherein the determined accessed items and types of				
2	access include objects accessed and operations performed on the objects.				
1	13. The article of claim 10 wherein developing a role comprises determining				
2	permissions for the application based on the determined accessed items and types of access.				
1	14. The article of claim 10 wherein the instructions are further operable to cause				
2	one or more machines to perform operations comprising determining which of a set of users				
3	are authorized to use the application.				
1	15. The article of claim 10 wherein the instructions are further operable to cause				
2	one or more machines to perform operations comprising:				
3	determining whether a user request to establish an application session has been				
4	detected;				
5	finding the role associated with the application; and				
6	assigning the role to a user.				

The article of claim 15 wherein detecting a user request to establish an 16. 1 application session comprises determining if a user is authorized to use the application. 2 The article of claim 15 wherein the instructions are further operable to cause 17. 1 one or more machines to perform operations comprising: 2 detecting an end of the application session; and 3 if an end of the application session is detected, disabling the assigned role for the 4 5 user.

1		18.	A database security analyzer comprising:		
2	a communication interface operable to receive database access statements issued for				
3	an application in use;				
4	a memory operable to store the issued database access statements; and				
5	a processor operable to develop a role associated with the application based on the				
6	issued database access statements for the application, wherein the role may be used to allow a				
7	user database access when using the application.				
1		19.	The analyzer of claim 18 wherein developing a role comprises:		
2	determining accessed items and types of access for an application based on the issued				
3	database access statements for the application;				
4	determining permissions for the application based on the determined accessed items				
5	and types of access; and				
6	developing a role associated with the application based on the determined				
7	permiss	sions.			
1		20.	The analyzer of claim 19 wherein the determined accessed items and types of		
2	access include objects accessed and operations performed on the objects.				
1		21.	The analyzer of claim 18 wherein developing a role comprises:		
2	determining whether issued database access statements have been captured;				
3	normalizing the database access statements; and				
4		elimin	ating redundancies in the database access statements.		
1 -		22.	The analyzer of claim 18 wherein the memory comprises instructions, and the		
2	process	or ope	rates according to the instructions.		

1	23. A method comprising:				
2	capturing the database access statements issued for one or more applications in use,				
3	wherein the database access statements comprise Structured Query Language (SQL) queries;				
4	normalizing the issued database access statements;				
5	eliminating redundancies in the normalized database access statements;				
6	determining accessed items and types of access for an application based on the issued				
7	database access statements for the application, wherein the determined accessed items and				
8	types of access include objects accessed and operations performed on the objects;				
9	determining permissions for the application based on the accessed items and types of				
10	access;				
11	developing a role associated with the application based on the developed permissions				
12	determining which of a set of users are authorized to use the application;				
13	detecting a user request to establish a session of the application;				
14	determining if the user is authorized to use the application;				
15	if the user is authorized to use the application, finding the role associated with the				
16	application;				
17	assigning the role to the user;				
18	detecting an end of the application session; and				
19	if an end of the application session is detected, disabling the assigned role for the				
20	user.				